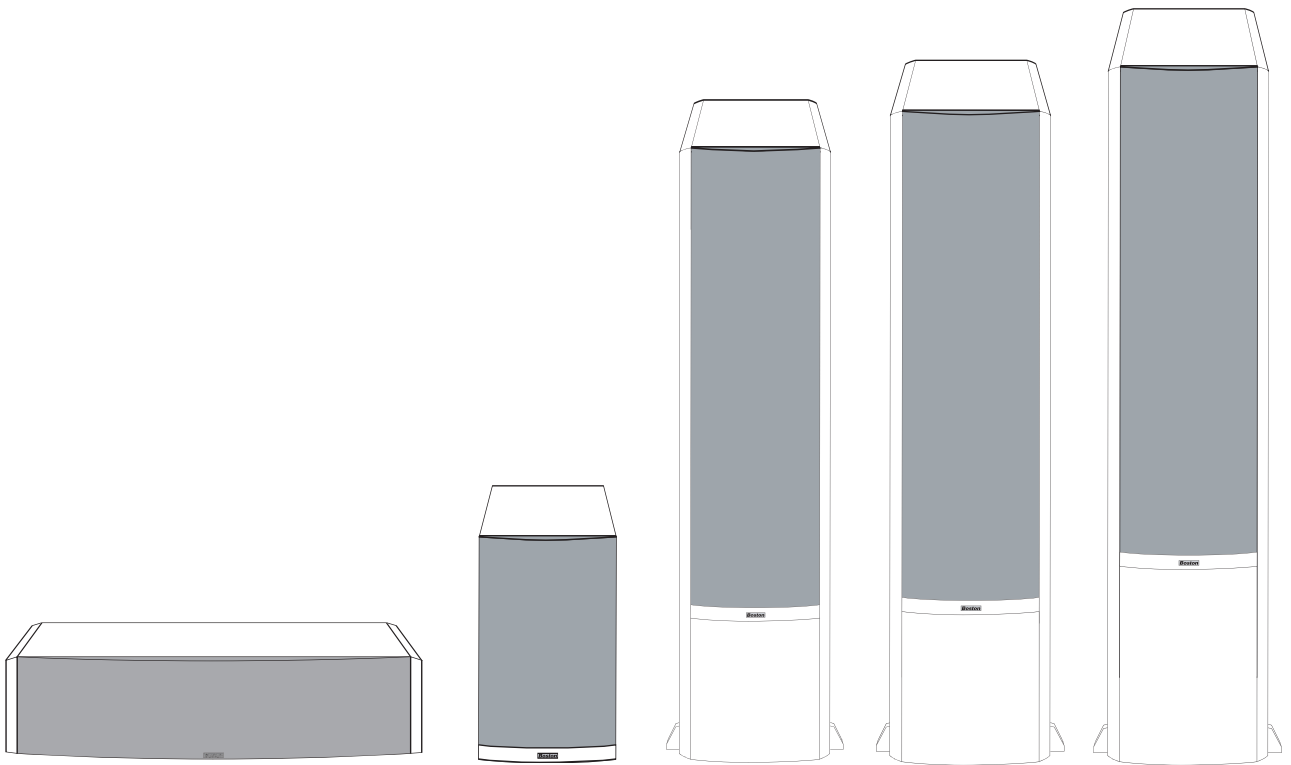


Boston *VR1, VR2, VR3* *VRB, VRC*

High Performance Home Theater Loudspeakers



Boston
Boston Acoustics

Specifications

	VR1	VR2	VR3
Frequency Response (± 3dB)	46Hz-20kHz	41Hz-20kHz	41Hz-20kHz
Recommended Amplifier Power	15-150 watts	15-150 watts	15-150 watts
Nominal Impedance	8 ohms	8 ohms	8 ohms
Sensitivity [1 watt (2.83v) at 1m]	93dB	93dB	93dB
Bass Unit	(2) 6½" DCD™ (165mm) copolymer	(2) 6½" DCD™ (165mm) copolymer	(2) 6½" DCD™ (165mm) copolymer
Midrange	-	4½" (115mm) neodymium copolymer	4½" (115mm) neodymium copolymer
Tweeter	1" (25mm) VRH.O.™ anodized aluminum dome with AMD™	1" (25mm) VRH.O.™ anodized aluminum dome with AMD™	1" (25mm) VRH.O.™ anodized aluminum dome with AMD™
Crossover Frequency	2700Hz	400, 2800Hz	400, 2800Hz
Dimensions (H x W x D)	36 x 9 x 10½" (915 x 229 x 267mm)	38 x 9 x 11½" (966 x 229 x 293mm)	38 x 9 x 11½" (966 x 229 x 293mm)
Weight	40 lbs (19kg)	45 lbs (21kg)	45 lbs (21kg)

	VRB	VRC
Frequency Response (± 3dB)	48Hz-20kHz	70Hz-20kHz
Recommended Amplifier Power	15-150 watts	15-150 watts
Nominal Impedance	8 ohms	8 ohms
Sensitivity [1 watt (2.83v) at 1m]	92dB	92dB
Bass Unit	7" DCD™ (180mm) copolymer	(2) 4½" (115mm) neodymium copolymer
Midrange	-	4½" (115mm) neodymium copolymer
Tweeter	1" (25mm) VRH.O.™ anodized aluminum dome with AMD™	1" (25mm) VRH.O.™ anodized aluminum dome with AMD™
Crossover Frequency	2400Hz	500, 2800Hz
Dimensions (H x W x D)	16¾ x 7¾ x 12" (427 x 197 x 304mm)	5 x 22 x 8" (129 x 559 x 205mm)
Weight	21lbs (10kg)	19 lbs (9kg)

Description

The VR1, VR2, and VR3 compact floorstanding speaker systems and the VRB compact bookshelf speaker system deliver the kind of powerful, impressive sound usually associated only with much larger, more expensive speakers.

The high-performance VRC is a timbre-matched center channel speaker that is a perfect compliment to any of the VR floorstanding models in your home theater system. The VRC's three-way design delivers extremely wide horizontal dispersion and exceptionally high power handling capability.

All three VR floorstanding models feature dual woofers for deep, authoritative bass response and low distortion. The placement of the woofers on the baffle has been chosen with extreme care and precision, and it provides two very specific, clearly audible benefits: First, by separating the woofers by a precisely calculated distance, the internal "pipe organ" standing wave—common to all columnar-type enclosures that have their bass drivers closely grouped at one end of the cabinet—is reduced to the point of audible insignificance. The result is less midrange coloration and a commensurate increase in clarity and detail.

The second benefit is smoother, more uniform upper bass/lower midrange frequency response in a real listening room. The dimensional relationship of the woofer to the nearby room boundaries (the walls and floor) in any speaker results in a reinforcement or cancellation of upper bass/lower midrange frequencies corresponding to the woofer-to-boundary distances. By placing the cabinet's two woofers at optimally chosen different locations, these dimensions are "averaged" over a wider variety of distances, thereby reducing the influence of any single woofer-to-boundary dimension. The result is much smoother, more accurate in-room frequency response, with far less of the typical "peak and dip" characteristic found in conventional designs.

The 3-way models utilize a newly-developed 4½-inch (115mm) midrange driver with a large 1½-inch voice coil for superb driver control and extremely high power handling. Its powerful neodymium magnet produces 10 times more magnetic energy than a conventional magnet of the same size, but its compact dimensions allow the tweeter and midrange to be mounted very close together for seamless, perfectly integrated sound with wide, uniform dispersion. A high output 1-inch (25mm) anodized aluminum VR tweeter, with our exclusive patented Amplitude Modification Device (AMD) produces extended, sparkling high frequencies.

The cabinets have extensive internal bracing and are constructed of Medium Density Fiberboard (MDF), chosen for its favorable acoustic characteristics. The result is superb structural integrity that eliminates the spurious resonances and vibration that degrade the sound of ordinary speakers.

MagnaGuard® magnetic shielding ensures the speakers' magnetic field does not interfere with the television's picture, allowing placement next to a TV in a home theater system.

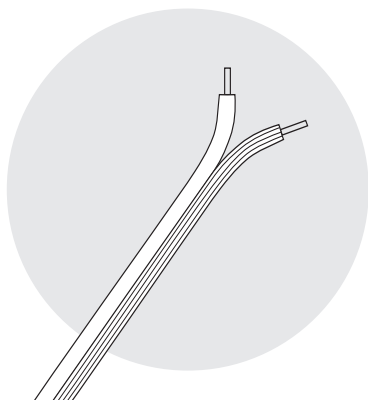
How to Connect Your Speakers

Correctly wiring your speakers is important for achieving the best sound quality. Wiring should take just a few minutes, but it's important to do it carefully, since incorrect wiring (such as reversed connections) can result in a poor soundstage and poor bass.

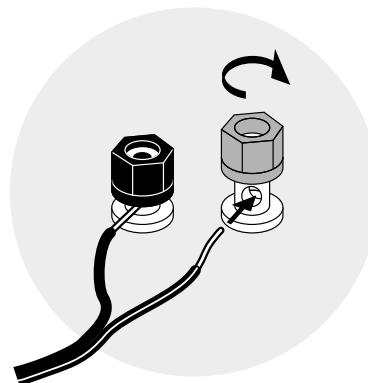
We recommend 18-gauge wire or thicker for runs up to 25 feet (8m), and 16-gauge wire or thicker for longer runs. Separate the first few inches of the wire conductors. Strip off ½" (12mm) of insulation from the ends of each speaker wire to expose the two conductors and tightly twist the wire strands.

When making all connections, be sure to connect the + (red) on the speaker to the + (red) on the amplifier, and the – (black) on the speaker to the – (black) on the amplifier.

WARNING: To prevent electrical shock hazard, always switch off the amplifier or receiver when making connections to the speaker.



IMPORTANT: Typically, one side of the wire is smooth. Connect this side to the – (black) connection. The other side has a rib or stripe. Connect this to the + (red) connection.



Using the five-way binding posts: The binding posts permit easy connection to banana plugs, spade lugs, and bare wire.

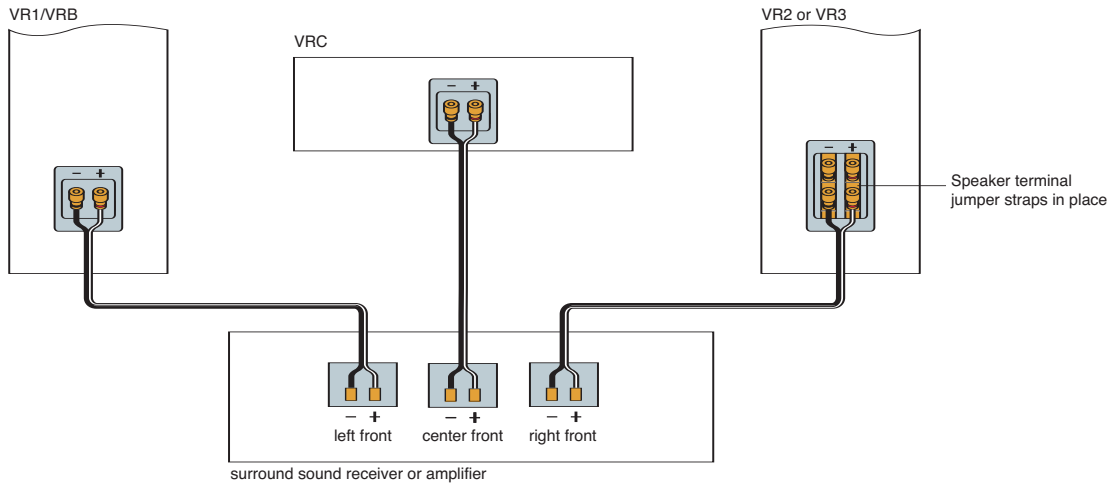
Insert the wire in the hole and tighten.

Connecting the Speakers to Your Amplifier or Receiver

Basic Hookup

1. Connect the speaker terminals to the amplifier speaker outputs.
2. Make sure the speaker terminal jumper straps are in place on the back of the speaker. (VR2 and VR3 only)

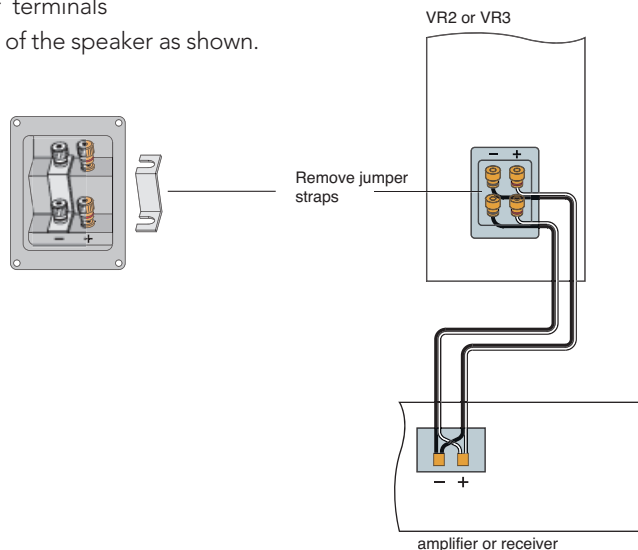
IMPORTANT: When making all connections, be sure to connect + to + (red) and – to – (black).



Bi-wiring (VR2, VR3 only)

Bi-wiring increases the flow of current and decreases intermodulation of different frequencies by providing separate inputs to the woofer and midrange/tweeter sections. Bi-wiring will usually improve the sound quality, although the improvement may be quite subtle. If you choose to bi-wire, use the same type and length of wire for all connections. When making all connections, be sure to connect + to + (red) and – to – (black).

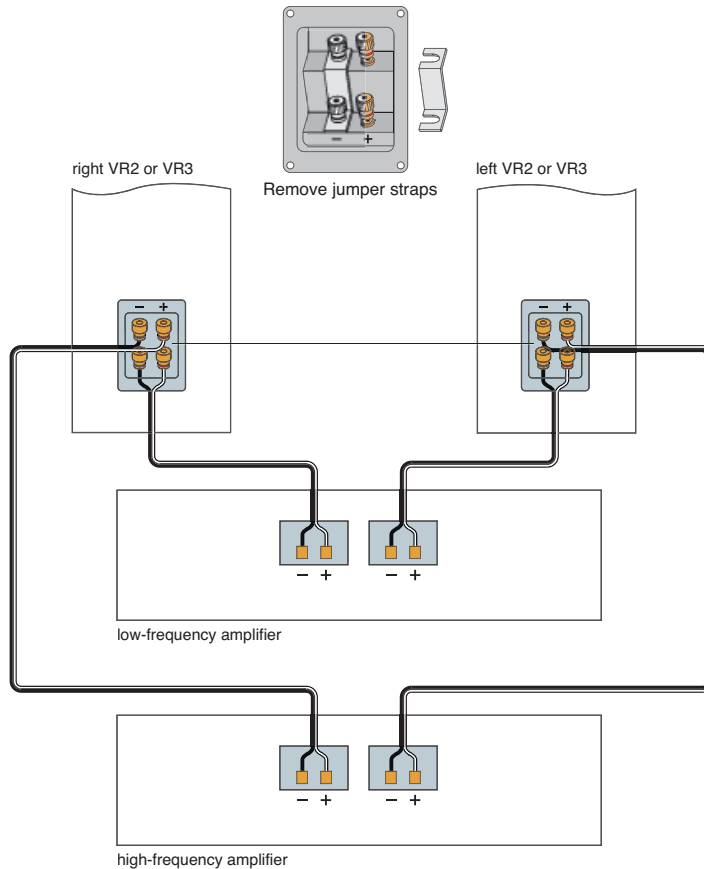
1. Unscrew both sets of terminals and remove the jumper straps.
2. Connect the wires from the amplifier's speaker terminals to each individual set of terminals on the back of the speaker as shown.



Bi-amplification (VR2 and VR3 only)

Bi-amplification requires using separate amplifiers dedicated to high and low frequencies. Using more than one amplifier can enhance the dynamic performance of your system. "Splitting the load" between two amplifiers lets each amplifier work less hard, increasing the available current to the drive units. When making all connections, be sure to connect + to + (red) and - to - (black).

1. Unscrew the terminal collars of both sets of terminals and remove the jumper straps.
2. Connect the wires from the bottom set of terminals to the amplifier driving the woofers.
3. Connect the wires from the top set of terminals to the amplifier driving the midrange/tweeter.



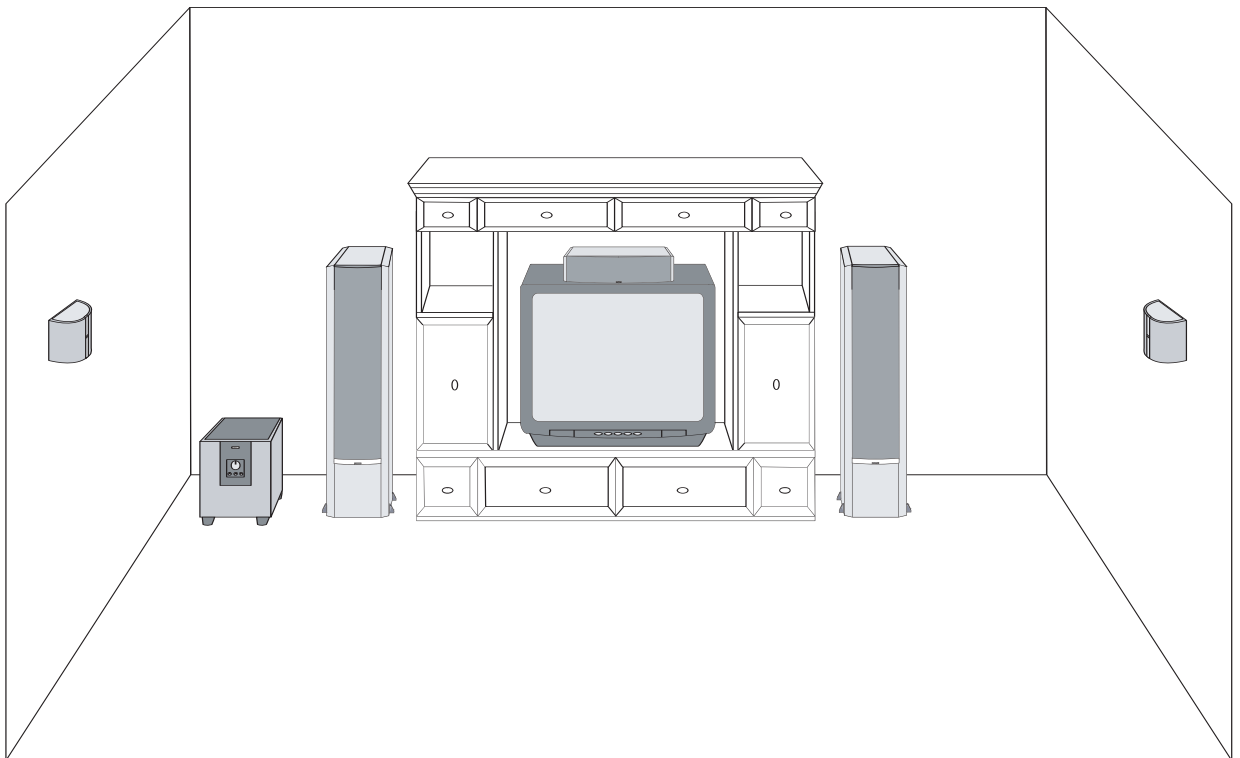
CAUTION: Do not use an external active crossover with your VR speakers. The external crossover and the VR's internal crossover can interact and distort the phase and frequency response of the system.

How to Place Your Speakers

The VR speakers were designed to deliver exceptional bass extension and tonal balance, regardless of where they are placed. However, for optimal results, it is advisable to position the *rear* of the speaker to be at least 3 inches (76mm) away from the wall or curtains that are behind it. The speakers should also be at least 2 feet (0.6m) from the corners of the room. Putting the speakers too close to a corner can produce an unnatural bass reinforcement that detracts from their balanced, uncolored sound. For optimal bass performance when a speaker must be placed in or near a corner, position it so that the distance to the side wall is different than the distance to the rear wall.

Most people like to hear a realistic soundstage, as they would from a good seat in a concert hall. To achieve this effect, place the speakers 6 to 12 feet (2-4m) apart, so they form a triangle with your favorite listening position. If your listening position happens to be less than the distance that the speakers are apart, then you may prefer to “toe-in” the speakers slightly.

Place the VRC center channel speaker as shown below, with the front of the speaker flush with the front of the television. The VRC is specially tuned to sit atop of a large, flat TV screen. This is quite important, since the TV screen surface acts as a large baffle that can alter a speaker’s sound, degrading both dialogue and music. Four self-adhesive rubber feet are provided to protect the TV’s finish and prevent vibration.



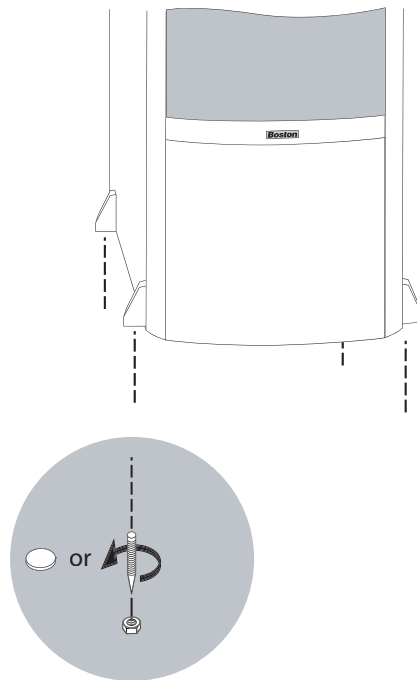
Listening Room Considerations

The listening room’s dimensions, furnishings and wall types all contribute to the way a loudspeaker sounds. If your room is square (same length and width), you may experience low frequency standing waves that can reduce overall clarity. Experiment with different placements and toe-in to avoid this. Also, the more fabric material there is in a room (curtains, sofas, carpets, etc), the more that high and midrange frequencies will be dampened. Conversely, the more exposed bare walls there are in the room, the brighter the speakers will sound. Thus, you may also want to experiment with speaker placements with these considerations in mind.

Using the Carpet Spikes

For placing speakers on thick carpet, we recommend using the four threaded carpet spikes and lock nuts (VR2 and VR3 only) which serve three purposes — leveling (an aesthetic issue), stability (a practical issue) and rigidity (an acoustic issue). The spikes concentrate the speaker's weight on four points, creating focused pressure that anchors the speaker cabinet to the floor and enhances rigidity. For most carpeting, leaving about ½-inch (12mm) of the carpet spike exposed is sufficient, although this may be adjusted as necessary.

For placing the speakers on hard, flat surfaces, use the four circular self-adhesive rubber pads provided instead of the carpet spikes.



Mounting the VRB to a Speaker Stand

The VRB features a 1/4"-20 threaded insert on the bottom panel, so it can be securely bolted to any accessory speaker stand that offers this feature. Bolting the speaker to the stand reduces unwanted vibration and reduces the possibility of the speaker accidentally falling off the stand.

Caring for Your Speakers

The cabinet of your VR Speaker system is finished in furniture-grade vinyl veneer. This finish should be treated like any other piece of fine furniture. To clean, simply wipe lightly with a slightly damp cloth. Do not use abrasive cleaners, solvents, wax, oil or furniture polish.

Listening Levels and Power Handling

The listed power recommendations assume you will operate your system in a way that will not produce distortion. Even these rugged speakers can be damaged by a modest amplifier if it produces distortion. If you hear a harsh, gritty noise, turn the volume down. Prolonged or repeated operation of your speaker with a distorted signal from the amplifier can cause damage that is not covered by the warranty.

Boston

Boston Acoustics

300 Jubilee Drive

Peabody, MA 01960 USA

978.538.5000

bostonacoustics.com

AMD is a trademark and DCD, VR, MagnaGuard, Boston, and Boston Acoustics are registered trademarks of Boston Acoustics, Inc.

© 2004 Boston Acoustics, Inc. All rights reserved. Specifications subject to change without notice.

042-001728-1